

### ***Remarks***

#### ***I. Amendment to the Specification***

The amendment to the paragraph starting at page 38, line 5 merely corrects the address of the American Type Culture Collection (ATCC), and thus the amendment does not add new matter.

Support for the amendment to the paragraph starting at page 38, line 25 can be found in the ATCC deposit receipts that have been submitted herewith. The amendment merely corrects the ATCC Accession Number given to *E. coli* containing plasmid pAH342, and recites the ATCC Accession Number given to *E. coli* containing plasmid pJJ36-J. The amendments thus add no new matter.

Support for the amendment to the paragraph at page 60, line 20 can be found at page 60, lines 36-37 and Figure 4. The amendment merely corrects an inadvertent typographical error by reciting the correct range of molecular weight of the rHMW excised from the gel. The correction is obvious upon consideration of the support found in the specification as filed and adds no new matter.

#### ***II. Amendment to the Claims***

Upon entry of the foregoing amendment, claims 2, 13, 16, 21-22, and 27-82 are pending in the application, with claims 2, 27, 38, 49, 60, and 71 being the independent claims. Of these pending claims, claim 2 has been amended, claims 13, 16, and 21-22 have been withdrawn pursuant to the restriction requirement and election of species requirement and can be rejoined in the event that rejoinder of these claims is possible

upon allowance of an elected claim. Claims 1, 3-12, 14-15, 17-20, and 23-26 are sought to be canceled without prejudice to or disclaimer of the subject matter therein. New claims 27-82 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Support for the amendment to claim 2 can be found at page 5, lines 2-16. Support for claims 27, 28, 49, 50, 60, 61, and 71-73 can be found at page 5, lines 2-16, page 6, lines 1-17, page 10, lines 7-35, Figure 6 and Example 1. Support for claims 29, 30, 40, 41, 51, 52, 62, 63, 74, and 75 can be found at page 5, lines 24-30 and page 34, line 34 - Page 35, line 9. Support for claims 31, 42, 53, 64, and 76 can be found at page 23, line 32 - page 24, lines 2. Support for claims 32, 33, 43, 44, 54, 55, 65, 66, 77, and 78 can be found at page 19, lines 13-14 and page 11, lines 9-12. Support for claims 34, 35, 45, 46, 56, 57, 67, 68, 79, and 80 can be found at page 20, lines 13-20. Support for claims 36, 47, 58, 69, and 81 can be found at page 14, lines 20-21. Support for claims 37, 48, 59, 70, and 82 can be found at page 14, lines 27-28; page 21, lines 14-16, and Example 14. Support for claims 38 and 39 can be found at page 28, lines 9-31.

### ***III. Restriction Requirement***

In reply to the Office Action dated August 17, 2006, requesting an election of one invention to prosecute in the above-referenced patent application, Applicants hereby provisionally elect to prosecute the invention of Group I, represented by pending claims 2, 13, 16, 21, and 22 and new claims 27-82. This election is made without prejudice to or disclaimer of the other claims or inventions disclosed.

This election is made **with** traverse.

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With respect to the Examiner's division of the claims into five groups and the reasons stated therefor, Applicants respectfully traverse. For example, Groups I and II are related as between a polypeptide and a composition (Group I), and a polynucleotide encoding that polypeptide (Group II). Groups I and III are related as between a polypeptide (Group I) and an antibody which specifically binds that polypeptide (Group III). Groups I and IV are related as between a polypeptide (Group I) and a method for diagnosing *Chlamydia* infection using the recited polypeptide (Group IV). Groups II and V are related as between a polynucleotide (Group II) and a method detecting a nucleic acid sequence encoding the polypeptide of Group I (Group V) using the recited polynucleotide (Group II).

Even assuming, *arguendo*, that Groups I-V represent distinct or independent inventions, Applicants submit that to search and examine the subject matter of these Groups together would not be a serious burden on the Examiner. For example, publications which disclose nucleic acids normally also disclose the amino acids encoded by the nucleic acids, thereby making it a simple matter for the Examiner to search and examine claimed polypeptides encoded by claimed nucleic acids. Furthermore, publications which disclose polypeptides often disclose raising antibodies to such polypeptides and methods for identifying molecules that bind the polypeptides, thereby making it a simple matter for the Examiner to search and examine antibodies which bind to a given polypeptide and methods to identify molecules that bind to a given polypeptide. Finally, a search for publications that disclose the recited polypeptides and antibodies would lead the Examiner to references that disclose methods of using the recited polypeptides and antibodies for detecting the presence of the disease.

Accordingly, it would not be an undue burden for the Examiner to search Groups I-V together. The M.P.E.P. §803 (Eighth Edition, Rev. August, 2005) states:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

Thus, in view of the M.P.E.P. §803, Applicants respectfully request that all claims be searched and examined in the subject application. Therefore, reconsideration and withdrawal of the Restriction Requirement, and consideration and allowance of all pending claims and new claims, are respectfully requested.

Furthermore, as the Examiner has pointed out at page 5, the eighth paragraph, Applicants respectfully request that, upon reaching allowable subject matter of a product claim, the non-elected process claims be considered for rejoinder.

#### ***IV. Election of Species Requirement***

The Office Action also required an election of one sequence from SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:23, SEQ ID NO:24, ATCC Accession No: PTA-3719, and ATCC Accession No: 98538 (as amended). Applicants hereby provisionally elect to prosecute the sequence of SEQ ID NO:2. This election is made without prejudice to or disclaimer of the other claims or inventions disclosed.

This election is made **with** traverse.

With respect to the Examiner's requirement for an election of one sequence and the reasons stated therefor, Applicants respectfully traverse with respect to SEQ ID NOs:1, 2, 15, 16, 23, and 24, ATCC Accession No: PTA-3719, and ATCC Accession

No: 98538 (as amended). In particular, SEQ ID NO: 1 is a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 2; The *Chlamydia* insert in the plasmid of ATCC Accession No: 98538 (as amended) encodes a mature polypeptide sequence of SEQ ID NO: 2; The *Chlamydia* insert in the plasmid of ATCC Accession No: PTA-3719 encodes amino acids 29-533 of SEQ ID NO: 2; SEQ ID NO: 15 is an amino acid sequence of the HMW polypeptide in *Chlamydia trachomatis* serotype B; SEQ ID NO: 23 is a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 15; SEQ ID NO: 16 is an amino acid sequence of the HMW polypeptide in *C. trachomatis* serotype F; and SEQ ID NO: 24 is a nucleotide sequence of the amino acid sequence of SEQ ID NO: 16. Furthermore, SEQ ID NOs: 15 and 16 have more than 95% sequence homology to SEQ ID NO: 2, and antisera that raised against a HMW polypeptide, *i.e.*, a polypeptide consisting of amino acids 29-1012 of SEQ ID NO: 2, are cross-reactive to the HMW polypeptide of *C. trachomatis* serotypes B and F. *See* Specification as filed page 61, line 1 to page 35, line 36.

Furthermore, Applicants are entitled to have at least ten sequences searched in the present application. The U.S. Patent and Trademark Office has implemented the following policy with respect to Restriction Requirement practice concerning sequences:

[T]o further aid the biotechnology industry in protecting its intellectual property without creating an undue burden on the Office, the Director has decided *sua sponte* to partially waive the requirements of 37 CFR 1.141 *et seq.* and permit a reasonable number of such nucleotide sequences to be claimed in a single application.

It has been determined that normally ten sequences constitutes a reasonable number for examination purposes. Accordingly, in most cases, **up to ten independent and distinct nucleotide sequences will be examined in a single application without restriction.**

MPEP § 803.04 (emphasis added). Therefore, Applicants are entitled to have at least ten sequences searched in the present application without restriction.

Even assuming, *arguendo*, that SEQ ID NOs: 1, 2, 15, 16, 23, and 24, ATCC Accession No: PTA-3719, and ATCC Accession No: 98538 (as amended) represent distinct or independent inventions, Applicants submit that to search and examine the subject matter of these sequences together would not be a serious burden on the Examiner. For example, given that SEQ ID NO: 1, ATCC Accession No: PTA-3719, and ATCC Accession No: 98538 (as amended) encode a whole or a part of SEQ ID NO:2, that SEQ ID NOs: 23 and 24 encode SEQ ID NOs: 15 and 16, respectively, and that SEQ ID NOs: 2, 15 and 16 share a high sequence homology, *i.e.*, 95% sequence identity to each other, publications which disclose SEQ ID NO:2 would also disclose the other sequences. Accordingly, it would not be an undue burden for the Examiner to search these sequences together. The M.P.E.P. §803 (Eighth Edition, Rev. August, 2005) states:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

Thus, in view of the M.P.E.P. §803, Applicants respectfully assert that SEQ ID NOs: 1, 2, 15, 16, 23, and 24, ATCC Accession No: PTA-3719, and ATCC Accession No: 98538 (as amended) are not distinct and independent and request that the sequences be searched and examined in the subject application. Even if the sequences are patentably distinct or independent, Applicants respectfully remind the Examiner that, according to MPEP § 803.04, the Examiner is required to examine up to ten sequences.

Therefore, reconsideration and withdrawal of the Election of Species Requirement with regard to SEQ ID NOs: 1, 2, 15, 16, 23, and 24, ATCC Accession No: PTA-3719, and ATCC Accession No: 98538 (as amended), and consideration and allowance of all pending claims and new claims, are respectfully requested.

Applicants reserve all rights in the non-elected species, including the right to file one or more divisional applications covering the subject matter thereof.

***Conclusion***

Prompt and favorable consideration of this Amendment is respectfully requested. Applicant believes the present application is in condition for examination. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

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